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PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Artcle 36 and Rule 70)

Applicant's or agent's file reference HIP03011	**FOR FURTHER ACTION**	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. **PCT/KR2003/000103**	International filing date *(day/month/year)* 17 JANUARY 2003 (17.01.2003)	Priority date *(day/month/year)* 17 JANUARY 2002 (17.01.2002)
International Patent Classification (IPC) or national classification and IPC **IPC7 A01K 1/03**		
Applicant PARK, Chean-Gui		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 4 sheets, including this cover sheet.

   ☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

   These annexes consist of a total of _____ sheets.

3. This report contains indications relating to the following items:

   - I ☒ Basis of the report
   - II ☐ Priority
   - III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
   - IV ☐ Lack of unity of invention
   - V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
   - VI ☐ Certain documents cited
   - VII ☐ Certain defects in the international application
   - VIII ☐ Certain observations on the international application

Date of submission of the demamd	Date of completion of this report
13 AUGUST 2003 (13.08.2003)	06 MAY 2004 (06.05.2004)
Name and mailing address of the IPEA/KR Korean Intellectual Property Office 920 Dunsan-dong, Seo-gu, Daejeon 302-701, Republic of Korea Facsimile No. 82-42-472-7140	Authorized officer KIM, Tae San Telephone No. 82-42-481-5633

Form PCT/IPEA/409 (cover sheet) (July 1998)

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/KR2003/000103

I. Basis of the report

1. With regard to the elements of the international application:*

[X] the international application as originally filed

[ ] the description:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____

[ ] the claims:
pages _____, as originally filed
pages _____, as amended (together with any statment) under Article 19
pages _____, filed with the demand
pages _____, filed with the letter of _____

[ ] the drawings:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____

[ ] the sequence listing part of the description:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.
These elements were available or furnished to this Authority in the following language English which is

[ ] the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).

[X] the language of publication of the international application(under Rule 48.3(b)).

[ ] the language of the translation furnished for the purposes of international preliminary examination(under Rules 55.2 and/or 55.3).

3. With regard to any **nucleotide** and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

[ ] contained inthe international application in written form.

[ ] filed together with the international application in computer readable form.

[ ] furnished subsequently to this Authority in written form.

[ ] furnished subsequently to this Authority in computer readable form

[ ] The statement that the subsequently furnished written sequence listing does not go beyond the disc losure in the international applicationas as filed has been furinshed.

[ ] The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. [ ] The amendments have resulted in the cancellation of:

[ ] the description, pages _____

[ ] the claims, Nos. _____

[ ] the drawings, sheet _____

5. [ ] This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box(Rule 70.2(c)).**

* *Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed." and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).*

** *Any replacement sheet containing such amendments must be referred to under item I and annexed to this report.*

INTERNATIONAL PRELIMINARY EXAMINATION

International aplication No.
PCT/KR2003/000103

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-5	YES
	Claims		NO
Inventive step (IS)	Claims	1-5	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-5	YES
	Claims		NO

2. Citations and explanations (Rule 70.7)

2-1. Citations

D1: US 4763607
D2: JP 09-238589
D3: JP 51-042288
D4: GB 2351221
D5: US 5865144
D6: US 4593650
D7: JP 12-060341
D8: US 6029698
D9: US 4343261

2-2. Inventive Step

2-2-1.

The subject matter of claims 1-5 is considered to involve an inventive step under PCT Article 33(3) for the reasons stated in 2-2-2.

2-2-2.

Claim 1 relates to a cage for breeding laboratory animals comprising a lid (10), a body (30) provided with a fixed jaw (32), a knob (11), and fixed jaw-catching members (12), wherein the knob integrally formed with the lid is bent toward the inner surface of the fixed jaw (32) of the body and then downwardly inclined toward the outside thereof; the fixed jaw-catching members integrally formed with the lid is bent toward the inner surface of the fixed jaw of the body; and the fixed jaw to which the knob and the fixed jaw-catching members are fixed are integrally formed with the body.

D2, which is the closest prior art to the subject matter of claim 1 in the structure, describes only the components somewhat similar to the fixed jaw and the knob defined in claim 1. D2 is different from claim 1 in the shape of the knob and does not describe the fixed jaw-catching members. Accordingly, the invention according to claim 1 cannot be readily invented from D1 alone or by a combination of D1 and any other cited documents. In addition, the present invention has big differences in the convenience of attaching/detaching a lid to a body, and in the stability of the fixing. Therefore, the subject matter of claim 1 involves an inventive step.

(Continued on Supplemental Sheet.)

Supplemental Box
(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of:

Box V.

Claim 2 relates to a cage for breeding a laboratory animal having a double filter comprising 1) a body and 2) a lid having a plurality of exhaust holes formed all over the top and bottom surfaces thereof, a filter fixing plate attached to the bottom surface thereof, an exhaust outlet formed at one side thereof in such a manner as to communicate with an exhaust space, an air supply valve formed at one side of the body, an outer filter mounted beneath the top surface thereof, and an inner filter disposed beneath an inner filter fixing frame, wherein the exhaust space is formed between the outer filter fixing frame disposed beneath the outer filter and the inner filter fixing frame, and the inner filter is provided beneath the exhaust space.

Claim 3 relates to a method for breeding laboratory animals using the laboratory animal breeding cage according to claim 2, wherein the contaminated air in the inside of the cage is purified by keeping the air pressure in the inside of the cage 10-20% lower than the suction pressure of the exhaust outlet.

Documents D4-D7 present more detailed information about the structure and shape of a filter than the other documents. Compared with the filters in D4-D7, the filter according to claim 2, which comprises an outer filter, an outer filter fixing frame, an exhaust space, an inner filter fixing frame and an inner filter, cannot be expected from D4-D7, taken alone or in combination. Therefore, the subject matter of claim 2 involves an inventive step. The subject matter of claim 3 which specifies claim 2 also involves an inventive step.

Claim 4 relates to a double safety valve of a lab animal breeding cage, comprising an outer valve, a fixing sleeve, an air nozzle pipe, a silicon rod, and springs.

D8 and D9 present more detailed information about the structure of a valve than the other documents. However, the description and drawings of D8 and D9 do not teach or suggest the functions of double shutting off the inner and outer sides of a cage and of uniformly maintaining the purified air in the inside of the cage, and a technical means for supporting said functions. Therefore, claim 4 involves an inventive step. Claim 5, which is dependent on claim 4 and which specifies the shape of the inner and outer valves, also involves an inventive step.